

Policy for Oceanographic Data, NSF 94-126

Purpose

1. This statement updates and revises guidelines to implement Federal data policy by assuring timely submission of high quality oceanographic data to the national data centers for secondary use. Guidelines for oceanographic data were first issued by the National Science Foundation's (NSF) Division of Ocean Sciences (OCE) in October 1988.

Policy

2. Ocean data collected under Federal sponsorship and identified as appropriate for submission to a national data center are to be made available within a reasonable time as described below.

Responsibilities of Principal Investigators

3. Principal investigators are required to submit all environmental data collected to the designated national data centers as soon as possible, but no later than two (2) years after the data are collected. Inventories of all marine environmental data collected should be submitted to the designated national data centers within sixty (60) days after the observational period/cruise. For continuing observations, data inventories should be submitted periodically if there is a significant change in location, type or frequency of such observations. Inventory forms (Report of Observations and Samples Collected on Oceanographic Programs, (ROSCOP) and instructions are supplied by the National Oceanic and Atmospheric Administration's (NOAA) National Environmental Satellite Data and Information Service (NESDIS), based on lists of investigators provided to NOAA/NESDIS by funding agencies.

4. Data sets identified for submission to the national data centers must be submitted to the designated center within two (2) years after the observational period. This period may be extended under exceptional circumstances by agreement between the principal investigator and NSF. Data produced by long-term (multi-year) projects are to be submitted annually. Principal investigators working in coordinated programs may (in consultation with their funding agencies) establish more stringent data submission procedures to meet the needs of such programs.

5. NOAA's National Environmental Satellite Data and Information Service staff and program representatives from funding agencies will identify the data sets that are likely to be of high utility and will require their principal investigators to submit these data and related information to the designated center.

6. Funding agencies will apply this policy to their internal ocean data collection and research programs and to their contractors and grantees and will establish procedures to enforce this policy.

7. A list of oceanographic data types and the centers designated to receive them are the following:

7.A.

- *Ocean physical data* -temperature, salinity, light transmission or attenuation, currents,

waves, pressure, sea level, and sound speed.

- ***Ocean chemistry data*** -nutrients such as phosphates, nitrates, nitrites and silicates; chemical tracers such as helium, tritium, freon and argon; pollutants such as petroleum hydrocarbons, organochloride and organophosphorus pesticides, polychlorinated biphenyls (PCBs) and heavy metals. Data may represent chemicals in water samples or biota.
- ***Ocean biology data*** -primary productivity; concentrations of pigments in phytoplankton, such as chlorophyll-a; biomass of phytoplankton, zooplankton, benthos and nekton; and bioluminescence.

[National Oceanographic Data Center \(NODC\)](#)

Data Officer, E/OC

1315 East-West Highway

SSMC3, 4th floor

Silver Spring, Maryland 20910

Phone: (301) 713-3267 x151

Fax: (301) 713-3301

7.B.

- ***Surface meteorological data*** - meteorological data in appropriate World Meteorological Organization formats as part of the Voluntary Observing Ship (VOS) program: air temperature, sea-surface temperature, dew point temperature, pressure, wind speed and direction, wind and swell waves, weather, short- and long-term radiation, visibility, cloud cover and type, and ice accretion.

[National Climatic Data Center \(NCDC\)](#)

Federal Building

151 Patton Avenue

Asheville NC 28801-5001

Phone: (828) 271-4800

Fax: (828) 271-4876

7.C.

- ***Geophysical, geological and geochemical data*** -bathymetry, magnetics, gravity, seismic and other quantitative geophysical data; geological data including station locations, collection/storage locations, preliminary descriptions of seafloor samples recovered, and all descriptions and analytical data, including geochemistry, derived from sediment and rock samples, including data from the Ocean Drilling Program (ODP).

[National Geophysical Data Center \(NGDC\)](#)

NOAA, Code E/GC

325 Broadway

Boulder, CO 80303-3328

Phone: (303) 497-6338

Fax: (303) 497-6513

7.D.

- ***Sea ice and other glaciological data*** - sea ice, icebergs, ice shelves and associated physical

oceanographic and meteorological data.

National Snow & Ice Data Center (NSIDC)

CIRES

Campus Box 449

University of Colorado

Boulder, Colorado 80309

Phone: (303) 492-6199

Fax: (303) 492-2468

7.E.

- ***Carbon dioxide data*** - archival data for the World Ocean Circulation Experiment (WOCE) and the Joint Global Ocean Flux Study (JGOFS) CO₂ measurements.

Carbon Dioxide Information Analysis Center (CDIAC)

Oak Ridge National Laboratory

P.O. Box 2008

Oak Ridge, Tennessee 37831-6335

Phone: (423) 574-0390

Fax: (423) 574-2232

8. Data are to be submitted according to formats and via the media designated by the pertinent national data center.

9. Principal investigators and ship-operating institutions are also responsible for meeting all legal requirements for submission of data and research results, which are imposed by foreign governments as a condition of that government's granting research clearances. Each principal investigator and institution must determine their legal obligations in this respect, with the assistance of the Department of State and sponsoring Federal agencies, as necessary.

10. Data-submission policies for U.S. WOCE, U.S. Global Ocean Ecosystems Dynamics (GLOBEC), U.S. JGOFS, and ODP are the following:

NOTE: The addresses provided (as of October 1999) may change. Please check with relevant program managers of the NSF Division of Ocean Sciences if necessary.

10.A. U.S. WOCE

All WOCE data shall be made available no later than two (2) years after collection, unless specifically waived by the international WOCE Scientific Steering Group (SSG). However, several WOCE programs require principal investigators to submit data collected to a Data Assembly Center (DAC) for the purposes of quality control and data synthesis within shorter time periods. Detailed program requirements for data submission may be found in WOCE Report No.104/93, WOCE Data Management, available from:

U.S. WOCE Office

Texas A&M University
Department of Oceanography
Mail Stop 3146
College Station, TX 77843-3146
Phone: 409-845-1443
Fax: 409-845-0888

10.B. U.S. GLOBEC

In addition to the data submission requirements mentioned in this document, the U.S. GLOBEC Scientific Steering Committee (SSC) requires all principal investigators to submit plans for the collection of data to the U.S. GLOBEC Data Management Office (DMO) at least *three (3) months* prior to execution of a sampling program. Specifics to be included in the data collection plan are detailed in U.S. GLOBEC Data Policy, Report Number 10, February 1994, available from:

U.S. GLOBEC Scientific Steering Committee Coordinating Office

UMCES/ Chesapeake Biological Laboratory
P.O. Box 38/ One Williams Street
Solomons, MD 20688
Phone: (410) 326-7370
Fax: (410) 326-7341

Principal investigators are responsible for documenting measurement and analysis techniques used to produce data sets and estimating accuracy and precision of these measurements. Specific physical measurements must be acquired along with all biological measurements and must meet pre-defined standards (see Report No. 10). In addition, the report specifies requirements for preservation of biological samples, including for the purpose of subsequent genetic analysis.

Data from measurements which do not involve manual analysis and which would be useful to the scientific community must be submitted by the principal investigator to the DMO within six (6) months after collection. All other measurements and any standard analyses of these measurements must be available to the community within one (1) year after collection. PIs will submit data either directly to the DMO or by placing it on-line as a U.S. GLOBEC distributed database. Format standards for submission of data and development of the database will be specified by the DMO. The DMO will serve as an intermediate archival location and data source and will transfer data to the NODC and prepare necessary documentation for data collected in foreign waters.

10.C. U.S. JGOFS

U.S. JGOFS chief scientists are required to submit all data to the Data Management Office (DMO) within one (1) year after the sampling date. However, data derived from long analytical procedures (e.g. 228Ra) which prevent the researcher from being able to readily analyze/publish can be exempted from this one (1) year requirement. In addition, final versions of Basic Core Measurements (i.e. temperature, salinity, dissolved oxygen) must be received by the DMO within six (6) months after the sampling date. Again, some exceptions can be made for data requiring extensive analyses. However, all principal investigators making core measurements are urged to make their data available as quickly as possible. When submitting data to the JGOFS Distributed Data Management System (DDMS), Program principal investigators have two options: 1.) to store data locally serving as a host node on the DDMS, or 2.) to submit data to the U.S. JGOFS Data

Management Office (DMO) and they will serve the data. CO2 measurements should be submitted to the WOCE World Hydrographic Programme (WHP). More detailed information on the U.S. JGOFS requirements for data submission are available from:

U.S. JGOFS Planning and Data Management Office

GEOSECS Building
MS 43
Woods Hole Oceanographic Institution
Woods Hole, MA 02543-1535
Phone: (508) 289-2497
Fax: (508) 457-2161

10.D. OCEAN DRILLING PROGRAM

The Ocean Drilling Program supports regional geological and geophysical field studies which can be used to develop mature drilling proposals in the Joint Oceanographic Institutions for Deep Earth Sampling (JOIDES) system. The geological and geophysical data from these projects are a primary source of information in planning drilling and should be available for review by the Site Survey and Pollution Prevention and Safety panels of JOIDES. Site survey data requirements for mature drilling proposals are identified in the JOIDES Journal issue titled, "Guide to the Ocean Drilling Program." Additionally, such data can be important in interpreting the results of a drilling leg and should be available to cruise participants.

Successful applicants are expected to deposit data from their cruises in the Ocean Drilling Program Site Survey Data Bank at Lamont-Doherty Earth Observatory, in addition to other data archiving requirements described in this document (7.C.). The address is the following:

ODP Logging Service

Lamont-Doherty Earth Observatory
Palisades, New York 10964
Phone: (914) 365-8343
Fax: (914) 365-3182

At the earliest possible date, the chairperson of the JOIDES Site Survey Panel, the manager of the Data Bank, and the representative of the appropriate national data center should be notified of the data types and schedule for submission.

The Ocean Drilling Program also supports more limited data collection activities through the U.S. Science Support Program administered by the Joint Oceanographic Institutions (JOI). Data reporting requirements under this program are the same as those identified above.

11. Federal agencies which engage in and/or fund data collection will promote quality control of ocean data which they and their contractors and grantees collect. Each national data center will:

- upon archival of a submitted data set, send to the principal investigator a copy of the data set as archived;
- monitor submitted data to assure that they are submitted in accordance with these guidelines and in appropriate formats: and
- report regularly to principal investigators and Federal agencies on the rates of data submission, archiving and usage.

The Foundation has TDD (Telephonic Device for the Deaf) capability, which enables individuals with hearing impairment to communicate with the NSF Information Center about NSF programs, employment, or general information. The telephone number is (703) 306-0090.
